



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,133	04/09/2004	Kenneth Perlin	NYU-10	2476
7590 Ansel M. Schwartz Suite 304 201 N. Craig Street Pittsburgh, PA 15213			EXAMINER JEN, MINGJEN	
			ART UNIT 3609	PAPER NUMBER
			MAIL DATE 08/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/822,133

Applicant(s)

PERLIN ET AL.

Examiner

Ian Jen

Art Unit

3609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/29/04
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/09/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

KHOI H. TRAN
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to exceed one hundred fifty words limit.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Hara et al (US Pat NO 7082351).

As for Claim 1, Hara et al shows a system for manipulation of objects comprising(Abstract): N objects, where N is greater than or equal to 2 and is an integer; and means for controlling and 2D locating of the N objects(Fig 1, Column 1, lines 59 - Column 2, lines 40; Column 3, lines 42 - 48).

As for Claim 2, Hara et al shows a system wherein the controlling means includes indicators disposed on the object (Column 38, lines 5-60).

Art Unit: 3609

As for Claim 3, Hara et al shows a system wherein the controlling means includes sensing means for locating the objects (Column 3, lines 42 - 53).

As for Claim 4, Hara et al shows a system wherein position indicators include emitters which indicate a position of an object (Column 38, lines 5 -60; Column 59, lines 20-30).

As for Claim 5, Hara et al shows a system wherein the objects are vehicles (Column 42, lines 61 - Column 43, lines 5 where wheeled robot apparatus moving on the two dimensional plane).

As for Claim 6, Hara et al shows a system wherein the controlling means includes a vehicle controller disposed with each vehicle (Fig 19, Column 25, lines 61 - Column 26, lines 46).

As for Claim 7, Hara et al shows a system wherein the vehicle controller of each vehicle includes an MCU (Column 38, lines 42 - Column 39, lines 2).

As for Claim 8, Hara et al shows a system wherein the sensing means includes sensors (Column 14, lines 49-56).

As for Claim 9, Hara et al a system wherein the emitters include LEDs.(Column 46, lines 17-25).

As for Claim 10, Hara et al shows a method for manipulating objects comprising the steps of: receiving information from N objects, where N is greater than or equal to 2 and is an

Art Unit: 3609

integer, at a centrally controlling and 2D locating controller Fig 1, Column 1, lines 59 - Column 2, lines 40; Column 3, lines 42 - 48); determining 2D locations by the controller of the N objects object (Column 38, lines 5 -60; Column 59, lines 20-30); and transmitting from the controller directions to the N objects for the N objects to move (Column 2, lines 12 - 52).

As for Claim 11, Hara et al shows a method as described in claim 10 wherein the transmitting step includes the step of transmitting from the controller kinematic parameters to the N objects (Column 59, lines 16 - 32; Column 55, lines 15 -65).

As for Claim 12, Hara et al shows an apparatus for tracking comprising: N objects, where N is greater than or equal to 2 and is an integer (Fig 1, Column 1, lines 59 - Column 2, lines 40; Column 3, lines 42 - 48), each object having an emitter which emits light; and means for 2D sensing of the N objects over time from the light emitted by each emitter (Column 46, lines 17-25).

As for Claim 13, Hara et al shows an apparatus as described in claim 12 including a planar element on which the N objects are disposed, and wherein the sensing means includes at least 2 1-D sensors that sense the light emitted from the edge of the planar element on which the objects are disposed (Column 42, lines 61 - Column 43, lines 5 where wheeled robot apparatus moving on the two dimensional plane; Column 38, lines 5-60; Column 46, lines 17-25).

Art Unit: 3609

As for Claim 14, Hara et al shows a method for tracking comprising the steps of: emitting light from N objects, where N is greater than or equal to 2 and is an integer; and sensing 2D locations of the N objects over time from the emitted light from the N objects (Fig 1, Column 1, lines 59 - Column 2, lines 40; Column 3, lines 42 - 48; Column 46, lines 17-25).

As for Claim 15, Hara et al show a method as described in claim 14 wherein the sensing step includes the step of sensing 2D locations of the N objects over time from the emitted light from the N objects through an edge of a planar element on which the N objects are disposed (Column 42, lines 61 - Column 43, lines 5 where wheeled robot apparatus moving on the two dimensional plane; Column 38, lines 5-60; Column 46, lines 17-25; Fig 1, Column 1, lines 59 - Column 2, lines 40; Column 3, lines 42 - 48; Column 46, lines 17-25).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Byrne et al (US Pat No 6687571) shows multiple robot apparatus in cooperating with each other.

Johannessen et al (US Pat Pub 2004/0148058) shows multiple robot apparatus in cooperating with each other.

Solomon (US Pat Pub 2004/0030449) shows multiple robot apparatus in cooperating with each other.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian Jen whose telephone number is 571-270-3274. The examiner can normally be reached on Monday - Friday 8:00-5:00 (EST).

Art Unit: 3609

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ian Jen 17/08 - 2007

Ian Jen

KHOI H. TRAN
SUPERVISORY PATENT EXAMINER

